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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jianglei Ma

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EXAMINER

HUYNH, NAM TRUNG

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

04/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/760,424	Applicant(s) MA ET AL.	
	Examiner NAM HUYNH	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,6,7,9,10,34-39 and 43-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,7,9,10,34-39 and 43-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This office action is in response to amendment filed on 12/3/08. Of the previously presented claims 1, 3, 6, 7, 9, 10, 34-39, 43-46; no amendments were made.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 6, 7, 9, 10, 34-35, 37-39, 43-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Moon et al. (US 6,741,578) (hereinafter Moon).

Regarding claim 1, Moon teaches a method of transmitting information in an unsynchronized Orthogonal Frequency Division Multiplexing (OFDM) communication network comprising a plurality of base stations, the method comprising:

modulating access channel information onto a predetermined initial access channel of an OFDM communications signal, wherein the access channel information comprises a common synchronization code (primary synchronization code) that is common to each of the plurality of base stations (column 6, lines 38-42) and a cell-

specific synchronization code (secondary synchronization code) that is orthogonal to the common synchronization code and unique to each base station (column 6, lines 43-58), and wherein the initial access channel comprises a predetermined set of one or more time-continuous signal components (frame) of the OFDM communications signal, each time-continuous signal component being carried by a respective sub-carriers (column 14, lines 15-45; column 7, lines 35-60); and

transmitting the communication signal (column 7, lines 10-25).

Regarding claim 3, Moon teaches the common synchronization code comprises a complex PN (pseudo noise) sequence known to communication terminals configured for accessing the communication network (column 7, lines 10-25).

Regarding claim 6, Moon teaches the communication signal further comprises a scattered pilot channel (access channel), and wherein the method further comprises modulating a selected one of the common synchronization code and the cell-specific synchronization code to the scattered pilot channel (column 10, lines 35-58).

Regarding claim 7, Moon teaches each time-continuous signal component of the communication signal is associated with a respective frequency index, and wherein the frequency indexes associated with the time-continuous signal components of the initial access channel are separated by a power of 2 (column 14, lines 15-45).

Regarding claim 9, Moon teaches the scattered pilot channel is pair-wise scattered onto sub-carriers having a common sub-carrier index in pairs of consecutive OFDM symbols (frame) (column 10, lines 35-58).

Regarding claim 10, Moon teaches the access channel information comprises a 3GPP (3rd Generation Partnership Project) PSC (Primary Synchronization Code), a 3GPP SSC (Secondary Synchronization Code) sequence, and a 3GPP primary scrambling code (column 1, lines 40-55).

Regarding claim 34, the limitations are rejected as applied to claim 1.

Regarding claim 35, Moon teaches receiving the communication signal at a communication terminal;

extracting data from the scattered pilot channel;

searching for the cell-specific synchronization code in the data extracted from the scattered pilot channel; and

performing fine timing and frequency synchronization operations at the communication terminal when the cell-specific synchronization code is found in the data extracted from the scattered pilot channel (column 16, lines 60-67; column 17; column 18, lines 1-12).

Regarding claim 36, Moon teaches the common synchronization code comprises a primary synchronization code (PSC) and a secondary synchronization code (SSC), and the cell-specific synchronization code comprises a scrambling code (column 7, lines 35-60).

Regarding claim 37, Moon teaches the PSC, the SSC and a first portion of the scrambling code are mapped to the initial access channel, and a second portion of the scrambling code is mapped to the scattered pilot channel (column 7, lines 60-65; column 8, lines 1-17).

Regarding claim 38, Moon teaches the PSC, the SSC, and a first portion of the scrambling code are mapped to the initial access channel, and a second portion of the scrambling code is mapped to the scattered pilot channel (column 7, lines 60-65; column 8, lines 1-17).

Regarding claim 39, Moon teaches the PSC is mapped to the initial access channel, and the SSC and the scrambling code are mapped onto the scattered pilot channel (column 7, lines 60-65; column 8, lines 1-17).

Regarding claim 43, the limitations are rejected as applied to claim 1.

Regarding claim 44, Moon teaches the output is configured to be connected to at least one antenna (column 1).

Regarding claim 45, the limitations are rejected as applied to claim 1.

Regarding claim 46, Moon teaches a memory for storing the synchronization channel information, wherein the processor is further configured to retrieve the access channel information from the memory (figure 11A).

Response to Arguments

3. Applicant's arguments with respect to claims 1, 3, 6, 7, 9, 10, 34-39, 43-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAM HUYNH whose telephone number is (571)272-5970. The examiner can normally be reached on 8 a.m.-5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Nam Huynh/
Examiner, Art Unit 2617